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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of Information unless I displays a valid OMB control runnber. Docket Number (Optional) PRE-APPEAL BRIEF REQUEST FOR REVIEW 4366-161 I hereby certify that this correspondence is being deposited with the Application Number Filed United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for March 29, 2004 10/813,509 Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] First Named Inventor David Clarence Mullen Art Unit Examiner Typed or printed Leslie M. Frankel 2609 NGUYEN, KHAI N. Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. I am the applicant/inventor. assignee of record of the entire interest Bradlev M. Knepper See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) Typed or printed name attorney or agent of record. 44,189 (303) 863-9700 Registration number _ Telephone number attorney or agent acting under 37 CFR 1.34. April 28, 2008 Registration number if acting under 37 CFR 1.34 ___ Date

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NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In Re the Application of: | Group Art Unit: 2614 |
|---|--|
| David Clarence Mullen | Examiner: NGUYEN, KHAI N. |
| Serial No.: 10/813,509) | Confirmation No.: 7396 |
| Filed: March 29, 2004 | REASONS SUPPORTING PRE-APPEAL BRIEF REQUEST FOR REVIEW |
| Atty. File No.: 4366-161 | BRILL REQUEST FOR REVIEW |
|) For: "METHOD AND APPARATUS TO FORECAST THE AVAILABILITY OF A RESOURCE" (As Amended) | CERTIFICATE OF TRANSMISSION I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING TRANSMITTED VIA THE OFFICE ELECTRONIC FILING SYSTEM IN ACCORDANCE WITH 37 OFR \$1.6(a)(4) ON AT 1126, 2008 |

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The following sets forth Applicants' Reasons In Support of the Pre-Appeal Brief Request For Review submitted herewith.

The Examiner's objections omit essential elements needed to reject the pending claims. In particular, the cited references do not teach, suggest or describe calculating first and second different probabilities for first and second segments of a task in order to forecast the availability of a resource for a work assignment as claimed. In addition, the Examiner's rejections on the grounds that certain of the claims are directed to non-statutory subject matter has no basis in the law. It is submitted that all claims are in condition for allowance.

The Examiner rejects claims 1-6 and 9-23 under 35 U.S.C. §103 as being obvious over U.S. Patent No. 5,327,490 to Cave et al. ("Cave '490") in view of U.S. Patent Application Publication No. 2003-0018762 to Mullen ("Mullen"). In addition, Claims 7 and 8 stand rejected under 35 U.S.C. § 103 as being obvious over Cave '490 in view of Mullen and further in view of U.S. Patent No. 5,570,419 to Cave et al. ("Cave '419").

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The present invention is generally directed to forecasting the future availability of a resource or agent for a new work assignment. More particularly, the probability of completing a task that can be broken into a number of differentiated segments is determined by separately determining the probabilities of each of the differentiated segments. For example, and without introducing limitations to the broader claims, an agent in a call center may be assigned to complete tasks that can be broken into a first segment during which the agent is speaking with a customer or other party ("talk time") and a second segment during which the agent is performing paper work following an instance of talk time ("wrap-up time"). A probability for each of these segments is then separately calculated. After the separate probabilities of the separate segments included in the task have been calculated, they are combined to obtain a probability related to whether the agent will be available within the forecast horizon. The references cited in the Office Action do not teach, suggest or describe segmenting a task into multiple segments and separately determining the probability that each segment will be completed within a foreast horizon, in connection with obtaining an overall probability that a resource will be available within that forecast time horizon as claimed.

The primary reference, U.S. 5,327,490 to Cave, is generally directed to a system and method for controlling call placement rates for telephone communication systems. Cave does discuss using statistical parameters in connection with controlling call placement rates. (Cave, abstract.) However, contrary to the Examiner's argument in the Advisory Action, Cave does not disclose determining a probability of completing different segments of a task within a selected forecasted horizon. In particular, the Examiner cites to column 11, lines 30-37 with respect to segmenting a task. However, this portion of Cave simply states that the system knows when different events related to the application of a predictive calling algorithm occur. Cave does not describe computing separate probabilities for different segments of a task. Indeed, the portion of Cave cited by the Office Action with respect to such disclosure instead discusses determining the average amount of time that an agent is in use in order to select a time to initiate an outgoing call. (Cave '490, col. 2, ll. 27-43.) An amount of time is not the same as a probability. Therefore, Cave does not teach, suggest or describe determining for each of a plurality of segments of a single task a probability of completion within a target line, or combining determined first and second probabilities to obtain a probability that an agent will be available within a selected forecast horizon as generally claimed.

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The Mullen reference is cited in connection with determining a probability of availability of a plurality of resources. As noted by the Examiner, the Mullen reference provides a detailed explanation of how a probability of availability for each of a plurality of resources can be determined. However, even if Mullen is combined with Cave, the cited references do not teach, suggest or describe determining a probability of agent availability by combining probabilities related to different segments of a task as claimed. In particular, Mullen does not discuss determining a separate probability related to an availability of a resource for different segments of a first task. Instead, Mullen uses various statistics, not probabilities of segments of a task, to obtain a probability of availability for each of a plurality of resources. Moreover, even if Mullen is only cited for disclosing a probability, combining the discussion of Mullen with that of Cave does not provide a disclosure of the claimed invention. In particular, such a combination omits the claimed feature of determining a separate probability for different segments of one task and then combining those separate probabilities.

Accordingly, the proposed combination of the Cave '490 and the Mullen references does not teach, suggest or describe each and every element of the pending claims. In particular, the proposed combination of references does not disclose separately determining a probability of completing different segments of a first task related to the availability of a first resource and combining those probabilities to obtain a probability of agent arrival within the selected forecast horizon. Therefore, Claims 1-6 and 9-23 are not obvious, and the rejections of these claims should be reconsidered and withdrawn.

The Office Action combines the Cave '490, Mullen and Cave '419 references in connection with the rejections of Claims 7 and 8. The Cave '419 reference is cited by the Office Action in connection with disclosure of the use of weighted forecasts and variance computation. Although the Cave '419 reference does discuss the use of statistical parameters in connection with controlling the pacing of outgoing calls, there is no teaching, suggestion or description in that reference of separating a single task into segments, and then separately calculating a probability of completion for each of the different segments within a forecast time. Accordingly, the Cave '419 reference does not make up for the deficiencies in the disclosure of Cave with respect to the pending claims.

The Office Action rejects all of the pending claims as being directed to non-statutory subject matter. In particular, the final Office Action states that "these claims are interpreted as Application Serial No. 10/813,509 Reasons Supporting Pre-Appeal Brief Request For Review

software claims which are non-statutory." (Final Office Action dated January 28, 2008, p. 3.)

The Examiner provides no support for this assertion in the final Office Action or the Advisory

Action. The Examiner is incorrect on this point. According to the USPTO OG Notice dated

November 22, 2005, a claim is statutory if the final result achieved by the claimed invention is

useful, tangible and concrete. The pending claims product a useful result because they provide a

probability of an agent becoming available within a forecast horizon.

The Examiner also states in the Advisory Action that the claimed invention is not within the technological arts since all of the recited steps can be performed in the mind of a user. The Examiner's suggestion that there is a "technological arts" requirement is incorrect. See for example, the OG Notice of November 22, 2005, which states "United States Patent Law does not support the application of a 'technical aspect' or 'technological art' requirement." Therefore, the rejections of the claims as being directed to non-statutory subject matter should be reconsidered and withdrawn.

Because the references cited by the Examiner do not teach, suggest or describe separately determining for different segments of a first task a probability of completing each of the segments within a forecast horizon, in order to arrive at an overall forecast of the probability of agent availability within the selected forecast horizon as generally claimed, the rejections of the claims as obvious should be reconsidered and withdrawn. In addition, because the claimed invention provides a useful, tangible result, the claims are directed to statutory subject matter, and the rejections under 35 U.S.C. §101 should also be reconsidered and withdrawn.

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The application now appearing to be in form for allowance, early notification of same is respectfully requested. The Examiner is invited to contact the undersigned by telephone if doing so would be of assistance.

Respectfully submitted,

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